JULY 27.

## Dr. J. BERNARD BRINTON in the chair.

Thirteen persons present.

A paper entitled "History and Biology of Pear Blight," by J. C. Arthur, was presented for publication.

#### AUGUST 3.

# Mr. THOS. MEEHAN, Vice-President, in the Chair.

Eleven persons present.

Oriskany Sandstone in Lycoming Co., Pa.—Mr. LEWIS WOOL-MAN remarked that, accompanied by a resident of Lycoming Co., Pa., he had recently made a tour through that and the adjoining county of Sullivan, with an eye to the geological features of the region, using as a guide the most recent publications of the Second Survey. In Hand Atlas X, the Oriskany formation is omitted from the map of Lycoming County, while the text speaks of it as "being absent." It is also omitted from the larger map accompanying the Second Survey. He was, therefore, surprised to find on the roadside, at the village of Pennsville, Muncy Township, blocks of the sandstone, containing its characteristic fossils.

Further examination resulted in finding a belt of this formation; not, however, making the bold, elevated ridge it so often does elsewhere in the State, but existing as a prominence upon the lower slope of the hill that rises from the north side of the village, the ascent beyond being over the lower members of the Hamilton group. Time at command being limited, the formation was traced only about a mile, but without finding it to disappear. The Friends' meeting house at one end of the village, and the schoolhouse at the other end, both stand upon this ridge. The former has its corners pointed with this sandstone, from an old quarry in sight, while all around the latter are strewn weatherworn fragments, beautifully exhibiting the fossils. Several of the houses and barns intermediate are also situated upon this formation, and for some of these it has furnished building material.

The location of the belt is within the area shown on the maps as Hamilton, and a few hundred feet from the division there marked as separating that group from the Lower Helderberg. Along the lawn leading to the country residence of William Ellicott, the rock was seen in place, pointing upward over the anticlinal forming Bald Eagle Mountain. A letter from his companion states that he has since found this rock upon the other side of the mountain, in Clinton township.

#### 1886.]

### NATURAL SCIENCES OF PHILADELPHIA.

Upon careful comparison of fossils in fragments brought home, the following were identified as exactly agreeing with those figured by Hall, from the Oriskany of New York, viz.: Spirifer arenosus, Spirifer arrectus and Rensselaeria ovoides.

#### AUGUST 10.

# Mr. THOS. MEEHAN, Vice-President, in the chair.

Fifteen persons present.

Notes on Lilium tigrinum, Gaul.-Mr. MEEHAN remarked that on the 7th of August he was attracted by the large number of honey bees (Italian) among the flowers of Lilium tigrinum. There were hundreds of flowers, and every flower had from one to six bees in them. They were not coming and going with the usual expedition of honey-seeking or pollen-collecting workers, but were taking things leisurely, as when feasting on a ripe peach, or some other soft, sweet, and spongy fruit. It was found that they were feeding or sucking the juices from the papillæ that form a ridge at the base of each division of the perianth. These papillæ are very numerous, minute and transparent, under a lens resembling ice crystals. They are formed in two lines, but approximate till they resemble a single gray line, extending from the base upwards for an inch in the centre of the segment. Several species of butterflics-notably some large Papilios, and some smaller Eudasmias, were sharing the repast with the bees. An examination showed that the papillæ had been pretty well "chewed" up-the term "chewing" being used notwithstanding the seeming impossibility from the structure of the bee's mouth, that it can chew in the ordinary acceptation of the term. A quantity of this papillose matter, gathered together on the point of a penknife, did not indicate any sweetness, or anything beyond moisture that would be popularly supposed to prove attractive to bees. Inside a flower just ready to expand, a considerable amount of moisture is excreted from the surface of the perianth. In this liquid no sweetness, but some slight astringency could be detected. Not even at the base, where in flowers nectar is usually scoreted, could any sweetness be detected. It has been broadly stated that color and fragrance are of use to flowers only as they may serve to attract insects for purposes of pollinization ; and that gaudy flowers have no fragrance. But some gaudy lilies are very sweet, and here we have a gaudy flowered species that seems to have nothing in the way of sweets after an insect has been attracted. Though feasting on the cellular matter, the bees in no way assist in pollination. It is difficult to imagine what relation the bees can have to any good economy in plant life in this instance. The plant produces no fruit in this part of the

297